



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/734,262	12/11/2000	Mitsuharu Ohki	112857-224	4709
29175	7590	02/07/2005	EXAMINER	
BELL, BOYD & LLOYD, LLC P. O. BOX 1135 CHICAGO, IL 60690-1135			CHANG, JON CARLTON	
			ART UNIT	PAPER NUMBER
			2623	

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/734,262

Applicant(s)

OHKI ET AL.

Examiner

Jon Chang

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 21, 2004 has been entered.

Response to Applicants' Amendment and Arguments

2. The amendment filed October 21, 2004 has been entered and made of record. Claims 6-8 has been amended. Claims 9-11 have been added. Claims 6-11 are pending.

Applicants' arguments have been fully considered, but are not deemed to be persuasive for at least the following reasons.

First, the Examiner wishes to point out that the claim language is not clear. In particular, the newly added language reads, "wherein values can be used for weighting to calculate from a distance between a noticed pixel and an edge, and a distance between the pixels in an input image." It is not clear what "values" are being referred to. Is it the values of the pixels, values of the juxtaposed pixels, or other values? (Note also that the claim does not require that the values be used, only that they "can" be used. Though not indefinite, this language does not require any prior art relied upon to teach

this feature.) Further, it is not clear what is being calculated (the language only states, "to calculate from a distance...").

Second, Applicants' arguments do not address the specific language of the claims. For example, while Applicant correctly state, "...the differences between pixel values of a noticed pixel and pixels in the proximity of the notice [sic] pixel can be compared with each other to detect a boundary line. Then, the pixel values can be weighted based on a positional relationship between the noticed pixel and the boundary line" is supported in the specification, page 4, lines 9-15, this does not correspond to the language of the claims. It is noted that this portion of the specification does not support "...an output changed pixel can be calculated by the pixels in the proximity of the noticed pixel."

Third, with regard to the Applicants' statement that "values Blend A and Blend B can be utilized to perform weighting," the Examiner notes that this does have support in the specification, but this is not claimed.

Fourth, with regard to Applicants' statement that "These values include a value that can calculate from a distance between the noticed pixel and an edge pixel and the distance between pixels in an input image," this not only lacks support in the specification at the location specified by Applicants, it also is not being claimed, and does not make sense. It does not make sense for "a value" to calculate anything. The specification does appear to support calculating BlendA and BlendB using the distance between a pixel and a boundary line, and the distance between pixels, but this is neither being claimed nor argued.

The Examiner notes that Applicants have not addressed the “new matter” of claims 7 and 8 as alleged (second paragraph of page 5 of the response) and have provided no arguments that the invention as claimed distinguishes from, or is patentable over the prior art.

Claim Rejections - 35 USC § 112

3. Claims 6-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 6, lines 8-10 are not supported by the original disclosure.

In claims 7 and 8, the blending steps are not supported by the original disclosure. While the specification describes the variables “BlendA” and “BlendB”, it indicates that these variables are utilized to perform weighting, while the claim requires blending after weighting.

4. Claims 6 and 9-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The language of claim 6 is not clear. In particular, lines 9-10 read, “...wherein values can be used for weighting to calculate from a distance between a noticed pixel

Art Unit: 2623

and an edge, and a distance between the pixels in an input image.” It is not clear what “values” are being referred to. Is it the values of the pixels, values of the juxtaposed pixels, or other values? Further, it is not clear what is being calculated (the language only states, “to calculate from a distance...”).

In claim 9, lines 3 and 4, “the pixel” (both occurrences) is vague. What pixel is being referred to? The same problem exists for claims 10 and 11.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Published Patent Application 7-107294 to Watanabe.

Regarding claim 6, as best understood, Watanabe discloses an image processing apparatus, comprising:

detection means for detecting presence or absence of a boundary line in the proximity of pixels (paragraph [0040]);

position calculation means for calculating positions of the boundary line with respect to the pixels (paragraph [0040]);

weighting means for weighting the pixel values of the pixels and juxtaposed pixels in accordance with the positions calculated by said position calculation means, wherein values can be used for weighting to calculate from a distance between a noticed pixel and an edge, and a distance between the pixels in an input image (paragraph [0041]; drawing 3; note that Watanabe states, "you may make a weighting factor small as it becomes far from an edge portion" and "proportional to difference for every pixel is sufficient"); and

outputting means for outputting the pixels weighted by said weighting means (paragraph [0041], and Fig.1, output).

Watanabe does not explicitly disclose storage control means for controlling storage of a plurality of pixels inputted. The Examiner takes Official Notice that storage of pixels, and control means for controlling storage of the pixels is well known in the art. It would have been obvious to one of ordinary skill in the art to implement pixel storage and storage control in Watanabe's invention because it would have allowed for more

efficient processing of the pixels, e.g., pixels would be held in order to calculate their difference.

Claim 7 is drawn to a method corresponding to claim 6. Remarks analogous to those presented above with regard to claim 6 are applicable. The described weighting corresponds to blending.

Claim 8 is drawn to a recording medium on which a computer-readable program is recorded. The computer-readable program corresponds to the apparatus of claim 6 and method of claim 7. The remarks provided above for claims 6 and 7 are therefore applicable. Watanabe does not disclose a recording medium or computer-readable program. However, the Examiner takes Official Notice that the use of computers is well known in the art. Given their wide availability, low cost, and flexibility, it would have been obvious to one of ordinary skill in the art to utilize a computer to implement Watanabe's invention. In doing so, the computer-readable program and the recording medium would be inherent in the combination.


Claims 9-11, as best understood, essentially require controlling the weighting of the pixel values when there is no boundary line near the pixel (noticed pixel is assumed). This aspect is contemplated by Watanabe. Note in paragraph [0040], an edge portion is only judged to exist if the portion is more than a threshold. This implies if it is not more than a threshold, then there will be no edge portion, and weighting will be controlled accordingly (as per drawing 3, block 103).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon Chang whose telephone number is (703)305-8439. The examiner can normally be reached on M-F 8:00 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703)308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jon Chang
Primary Examiner
Art Unit 2623

Jon Chang
February 7, 2005